ABSTRACT

Sound is a longitudinal wave that propagates through a medium in the form of liquids, solids, and gases. Humans can hear sound when sound waves to the eardrum humans with boundary frequency between 20 Hz to 20 kHz. Humans can not hear sounds above or below the frequency limit. Sounds can also disturbing human hearing so called noise. Noise is unwanted sound by humans and are environmental factors that can negatively affect health, very high noise levels can cause hearing damage. While the noise level is being able to interfere with the effectiveness and ease of communication.

Working principle of this device is based on the measurement of audio signal by using one of the open library android are commonly used insound processing programming is Spl GUI. The programming language used is java android. This tool can determine the level of noise and the noise of status based on a threshold value has been determined.

This tool was applied in the classroom. Noise in the classroom can disturb teaching and learning activities so that the material submitted can not be well received. Moreover, in a state of noisy classroom does not meet the standards of an optimal learning environment. If the classroom is noisy it is not worth the space used for teaching and learning activities. Classroom noise levels can be determined quickly so that it can be minimized for example by adding a silencer. Results of classroom testing of buildings A and B show the status of noisy with an average of 51-52 dB and status is not noisy with an average of 39-40 dB. Qualitative satisfaction of the overall user stated features and complete content by 66%, works fine by 73%, nice view by 67%, very easy to use by 61% and useful by 80%.

Keywords: Noise, java, android